

**SYSTEM AND METHOD FOR ADAPTIVE
STORAGE AND CACHING OF A DEFECT TABLE**

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ABSTRACT OF THE DISCLOSURE

In one embodiment of the present invention, systems and methods are provided through which the capacity of a defect buffer in a microcontroller of a mass storage device is determined without regard for the quantity of defects on a recording medium.

- 10 The capacity of the defect buffer is determined in varying examples, based on the amount of available buffer space and/or the application of the storage device. In one embodiment, the capacity of the defect buffer is less than the quantity of defects on the recording medium, wherein entries in a defect table on the recording medium are swapped in and out of the defect buffer as needed, such as using a most-recently-used
- 15 scheme. In another embodiment of the present invention, systems and methods are provided through which the defect table is partitioned into a plurality of segments that are physically distributed throughout the recording medium.

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